

Appl. No. 10/723,108
Amdt. Dated 1/13/2004
Reply to Notice of Allowance of November 3, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17. (Previously Cancelled)

18. (Previously Presented) An electronic assembly comprising:

a substrate;

a first integrated circuit package mounted to said substrate;

a first phase change pad including a mesh embedded into a first thermally conductive phase change material, the first phase change pad being coupled to said first integrated circuit package;

a second integrated circuit package mounted to said substrate;

a second phase change pad including a mesh embedded into a second thermally conductive phase change material, the second phase change pad being thicker than the first phase change pad and coupled said second integrated circuit package; and

a thermal element coupled to both said first phase change pad and said second first phase change pad.

19. (Previously Presented) The assembly of claim 18, wherein said first thermally conductive phase change material and said second thermally conductive phase change material includes a poly-olefin.

20. (Previously Presented) The assembly of claim 19, wherein said first thermally conductive phase change material and said second thermally conductive phase change material includes a

thermally conductive filler material being substantially greater in volume than said poly-olefin.

Appl. No. 10/723,108
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21. (Previously Presented) The assembly of claim 18, wherein said first thermally conductive phase change material changes from a solid state to a liquid state at approximately 45 to 50 degrees centigrade.

22. (Previously Presented) The assembly of claim 18, wherein said substrate has a plurality of conductive pads along an edge of said substrate.

23. (Previously Presented) An electronic assembly, comprising:
a substrate;
a first integrated circuit package mounted to said substrate;
a second integrated circuit package mounted to said substrate;
a thermal element that is separated from said first integrated circuit package by a first distance and from said second integrated circuit package by a second distance which is greater than the first distance;
a first thermally conductive phase change pad that couples said first integrated circuit package to said thermal element, said first thermally conductive phase change pad includes a first thermally conductive phase change material; and,
a second thermally conductive phase change pad that couples said second integrated circuit package to said thermal element, said second thermally conductive phase change pad includes a second thermally conductive phase change material embedded into a mesh and sized with a thickness greater than a thickness of the first thermally conductive phase change pad.

24. (Previously Presented) The assembly of claim 23, wherein both said first thermally conductive phase change material and said second thermally conductive phase change material includes a poly-olefin.

25. (Previously Presented) The assembly of claim 24, wherein said first thermally conductive phase change material and said second thermally conductive phase change material includes a

• Appl. No. 10/723,108
Amdt. Dated 1/13/2004
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thermally conductive filler material being substantially greater in volume than said polyolefin.

26. (Previously Presented) The assembly of claim 23, wherein said first thermally conductive phase change material changes from a solid state to a liquid state at approximately 45 to 50 degrees centigrade.